

**REMARKS**

This communication is in response to the Office Action dated June 18, 2007. Claims 22, 24-27, and 33-36 are pending. Claims 1-21, 23, and 28-32 were previously withdrawn from consideration.

New dependent claim 36 is added to describe additional details of the graphic processing system. Claim 36 is supported by paragraph [0029] of the specification.

Claims 37-45 were added to further describe the graphics system and has limitations previously presented in claims 22, 24, and 33. Additionally, Applicants have added additional limitations to explicitly specify that the overclocking control module is implemented at least in part in hardware. Claim 37 also includes a limitation that the overclocking control module is implemented at least in part in hardware, which is supported by paragraph [0020]. Claim 42 specifies that the overclocking control module comprises a combination of hardware and software. Independent claim 43 specifies that the overclocking control module comprises a combination of hardware and software disposed on the GPU.

Claim 24 was rejected under 35 U.S.C. 112 as being indefinite for failing to point and claim the subject matter. Claim 24 has been amended for clarification.

Claims 22, 24-27, 28-32, and 33-35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bigjakkstaffa, in view of U.S. 6,340,972 (Fox) and US 2002/0164084 (Baggs). Reconsideration of the rejection in view of the following remarks and foregoing amendments is requested.

It is respectfully submitted that the combination of Bigjakkstaffa, Fox and Baggs does not disclose the graphics system of independent claim 22. The combination of Bigjakkstaffa, Fox and Baggs does not disclose a graphics processor system comprising an overclocking control module *disposed in said GPU configured to evaluate overclocking parameters*. Furthermore, the combination of Bigjakkstaffa, Fox and Baggs does not disclose an overclocking module *disposed in said GPU configured to evaluate overclocking parameters in response to a function call received by the GPU*.

The examiner bases various arguments on equivalents between hardware and software and states on page 3 that “as clearly set forth MPEP 2105-2106, any element, step, or functionality that is implemented by hardware can be implemented as and via software, and vice versa.” Applicant disagrees and notes that an online search of the current online version of the MPEP (Rev. 5, Aug. 2006) using the terms “hardware” and “software”, did not reveal any portions in the cited sections that would correspond to the statement that the Examiner relies upon. MPEP 2106.01 does state: “[i]n contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized, and is thus statutory”, but this does not indicate that hardware can be implemented as and via software. While there is a section of the MPEP that deals with equivalents, (MPEP 2183), a soft search could not locate an indication that hardware can be implemented as and via software and vice versa. If the examiner persists with basing rejections on this argument, applicant respectfully requests a precise cite to the portion of the MPEP that the Examiner is relying upon.

On page 7 the examiner states that it would be obvious in view of Bigjakkstaffa and Fox to utilize the artifact detector of Baggs to detect the number of errors in the video stream in the manner of claim 22 because “it allows the objective measurement of the total quantity of errors on a per-frame basis and is more accurate in doing so than a human observer because it examines/tests regions of the screen at a closer level than a human observer could at a much higher rate of speed.” The examiner appears to engage in impermissible hindsight in evaluating the obviousness of claim 22 over Bigjakkstaffa in view of Fox and Baggs. (MPEP 2141 II (C); MPEP 2145 X (A)). It is respectfully submitted that these benefits noted by the examiner are only disclosed in the applicant’s specification, paragraphs [0002] and [0003], and are not disclosed within the prior art references.

In the rejection of claim 22, the examiner also relies on MPEP 2144.04(III) [R-1] on page 7 to show it is obvious to automate a task performed by a human being in making the argument that it would have been obvious “that such functionality as stress testing , etc, could be carried out by the software.” MPEP 2144.05(III) [R-1] refers to *In Re Venner*. In *Venner*, the Court

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held that providing automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over prior art. 262 F.2d 91, 95, 120 UPSQ 193, 194 (CCPA 1958). However, further case law clarifies that automation of a manual system is not obvious where the automatic operation of manual components is substantially different than the manual activity of an operator. *Decca, Ltd. V. United States*, 160 U.S.P.Q. 739, 750 (1969). It is respectfully submitted that the reliance upon MPEP 2144.05 as providing a basis for combining Bigjakkstaffa, Fox, and Baggs to achieve claim 22 is misplaced, because the graphics system of claim 22 operates in a substantially different manner than the combination of Bigjakkstaffa, Fox, and Baggs.

Therefore, it is respectfully submitted that claim 22 and its dependent claims 24-27, 28-32, 33-35 should be in a condition for allowance.

New claims 37-45 are based off of limitations of previously presented claims and hence are patentable for at least the same reasons as the other claims. Additionally, it is respectfully submitted that the new claims are further patentable on a separate basis. None of the cited art, alone or in combination, would teach or suggest the combination of a GPU having an overclocking control module implemented at least in part in hardware and further having the other recited combinations of elements. Additionally, claim 37 recites a combination of features that includes a GPU having an overclocking control module, driver program, control panel program, and other features not taught or suggested by the prior art of record.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is now in condition for allowance. The Examiner is invited to contact the undersigned if there are any residual issues that can be resolved through a telephone call.

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The Commissioner is hereby authorized to charge any appropriate fees to Deposit Account No. 50-1283.

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